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ABSTRACT

The authors consider the special education research studies conducted for the Special Education Department of the Dallas Independent School District. The Dallas evaluation model utilized a modification of the CIPP model which delineated four kinds of evaluation information: context (which describes the state of the world before intervention), input (which describes the intervention strategies), process (which describes the implementation of strategies), and product (which describes the impact of intervention). Forty-seven research studies conducted over an 8 year interval addressed research questions falling into seven categories: context/needs, student description, model description, functional quality, model effects, people reaction, and cost. Six major topical areas were covered by research and evaluation efforts--mainstream programming 1972-1977, Child Find Project 1975-1980, early intervention 1975-1981, individualized education program (IEP) implementation 1972-1978, programming for emotionally disturbed children 1978-1981, and standardized testing 1976-1977 and 1980-1981. Some study outcomes were that more than half the IEPs sampled did not include annual goals in concert with short term objectives and test performance by special students was low. (SB)

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Eight Years of Special Education Research in a Large Urban School District

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Eight Years of Special Education Evaluation in a Large Urban School District¹

A major development in service provision for handicapped people was federal legislation embodied in Public Law 94-142. This law, enacted in November 1975, mandated "free public education" for all handicapped students between the ages of three and twenty-one years. P. L. 94-142 specifies that an Individualized Educational Program (IEP) must be jointly developed by the regular and special education teachers, support personnel, and parents for each child stating an analysis of the child's present achievement level, a listing of both short range and annual goals, and identification of specific services that will be provided, and an indication of the extent to which the child will be able to participate in regular school programs. Finally, P. L. 94-142 has mandated that handicapped students be placed in the least restrictive environment (Congress 89, 1977).

While P. L. 94-142 has been a revolution in services for handicapped children, it has also provided impetus for renewed and intensified research and evaluation in special education programs. The Bureau of Education for the Handicapped in the former U. S. Office of Education commissioned several criteria study papers and panels to develop methods to assist states in implementing the major provisions of Public Law 94-142. This venture constituted a major effort toward accountable implementation of P. L. 94-142 and included development of criteria for

¹Research reported herein could not have been completed without the excellent cooperation and assistance of the administrators and professional staff in the Dallas Independent School District, especially that provided by Dr. Allen R. Sullivan, Student Services and Dr. Ruth M. Turner, Exceptional Children and Youth Services.

implementing the IEP provision (Stephens and Macy, 1978), the least restrictive environment provision (Aloia, 1978), due process procedures (Budoff, 1978), and protection in evaluation procedures (Page, 1978). Other workers have described many of the salient issues involved in evaluating implementation of P. L. 94-142 (Altschuld and Downhower, 1980; Dunst, 1979; Jones, Gottlieb, Guskin, and Yoshida, 1978; Maner and Barbrock, 1979).

A major provision of P. L. 94-142 is the least restrictive environment concept which is more generally the notion of mainstreaming. Research regarding the efficacy of special class placement versus mainstream experience has been mixed. While many writers believed that self-contained, traditional classrooms were the most appropriate placement for exceptional children (Warner, Thrapp, and Walsn, 1973), other studies reported that mainstreaming had a positive effect on the special child's attitude toward school, perceptions of self, and ability to initiate interpersonal contacts (Meyerowitz, 1967; Budoff and Gottlieb, 1974; Rapier, Adelson, Carey, and Croke, 1972; Macy and Carter, 1979).

A review of literature revealed very few reports of studies which evaluated the quality of IEPs. Project IEP, sponsored by the former Bureau of Education for the Handicap, involved a needs assessment study on IEPs in four states and attempted to document the diverse perceptions of parents, teachers, and other school personnel concerning IEP requirements of P. L. 94-142 (Penney, Morrissey, Safer, 1977; Sagstetter, Morrissey, Safer, 1977; Lewis, Morrissey, Safer, 1977; Norton, Morrissey, Safer, 1977). Anderson, Barner, and Larsen (1977) found in a study of IEPs in Santa Barbara, California that significant information was frequently missing from IEP documents, and improvement in the technical quality of instructional objectives was needed. Similar results were

found also by an evaluation of IEPs conducted in the Dallas Independent School District (Reisman and Macy, 1978).

Computer applications have been cited in the literature as a way to combat the information explosion caused by IEPs (Lehrer and Daiker, 1978), and many public school districts have constructed computer information systems as an aid to management. For example, in the Dallas school district a computerized information system provides the information necessary for state and federal special education reports, assists administrators in the formation of class rosters throughout the school year, provides information about special students receiving transportation, and assists in projecting enrollments for resource allocations (Reisman, Holt, Kocsis, Macy, 1980).

Accountability of special education programs, in terms of the utilization of tax dollars, has been emphasized in recent research reports (Mittenthal, 1976; Burgess, Nelson, Wallhouse, 1974). Examples have included a utilization review, defined by Fowler (1977) as a useful technique in evaluating treatment and cost effectiveness, and the Rehabilitation Research and Training Center in Mental Retardation at the University of Oregon has studied the costs of operating community residential facilities through development of a fiscal reporting system (O'Connor and Morris, 1978).

Research in the evaluation of vocational programs for handicapped people has made substantial contribution as well. The outcomes of vocational education were studied at Ohio State University's National Center for Research in Vocational Education (Darcy, 1980) and at the Regional Rehabilitation Research Institute at the University of Oklahoma (Hills, 1973). Other workers have designed an administrator's manual to assist personnel in improving the quality of instruction and of

supportive services to students enrolled in vocational education programs (Wentling and Albright, 1978).

Studies in the application of research methods in the special education student population have included discrepancy evaluation (Yavorsky, 1976), decision analysis (Saar, 1980), and applications of a program analysis system (Flynn and Heal, 1980; Demaine, Silverstein and Mayeda, 1980; Sproger, 1980). The team approach to the evaluation of special education students was suggested by Maher (1980), and Smith (1980) recommended a participant-observation technique.

Researchers have studied also test scale applications with special education students (Antonak, 1980; Gottlieb and Corman, 1975; Mealor and Richmond, 1980), and others have considered applications of baseline designs (Murphy and Bryan, 1979; Crawford, McManon, Conklin, Giordano, Alexander, and Kadyszewski, 1980) and goal attainment scaling (Carr, 1979; Sonnad, 1980). Gaylord-Ross (1979) discussed ecological theory in the context of special education research, and Joiner (1979) reported procedures for using cartography in the evaluation of special education programs.

Studies of early intervention for handicapped children have involved development of language training models (Bricker and Carlson, 1980) and measurement of preschoolers with norm referenced and criterion based measures (Mac Turk and Neisworth, 1978). An intervention efficiency index was proposed by Bagnato and Neisworth (1980) as a method of measuring child progress and program impact, and others have considered the special methodological problems associated with research with very young handicapped children (Simeonsson and Weigert, 1975).

Many large city public school systems have undertaken fairly extensive field-based studies of special education programs in an effort

to develop innovative strategies, improve program efficiency, and demonstrate accountable management practices. In San Antonio, the school district's research department worked jointly with a regional educational service center to conduct a three-year study of the special education program, and plans called for continued evaluation of the special education program in terms of categorical components (San Antonio Independent School District, 1976). Long-range planning in the Metropolitan Public Schools of Nashville-Davidson County, Tennessee specified systematic evaluation of programs for exceptional children and development of a computerized information system for the special education program (Metropolitan Nashville-Davidson County Public Schools, 1975).

Special education evaluation conducted in the San Juan Unified School District in California considered seven topical areas for study: identification and placement, service provision, least restrictive placement, performance, parent and professional satisfaction, professional development, and program management (Enell, 1979). Data collection included student measures of attitude and academic achievement, teacher surveys and parent questionnaires, and administrative reviews.

ORGANIZATIONAL STRUCTURE FOR RESEARCH

Dallas Independent School District Research and Evaluation

The Dallas Independent School District (ISD), Dallas, Texas, encompasses 351 square miles and includes 135 elementary schools, 23 middle schools, 21 senior high schools and 6 magnet high schools. The District has an operation budget of more than \$320 million and employs approximately 14,000 people as teachers, administrators, aides, secretaries and other support personnel. The ethnic population is approximately 49% Black, 30% White, and 21% Mexican-American.

The major purposes of the Department of Research and Evaluation (R&E) are to provide useful information to Dallas ISD decision makers and to serve as an accountability agent. The process requires cooperative action by decision makers (i.e., curriculum developers, teachers, and administrators) and evaluators. The decision maker's role is to weigh the evidence provided by the evaluator and to render judgment about what course of action to take when confronting any particular situation. Because the decision maker generally has neither the time nor technical skill necessary to gather and to analyze the objective data to make informed decisions, the evaluator provides such information concerning the reason action must be taken and alternative strategies that are open. Thus, it is essential that the evaluator know enough about the decision making process and the information used in reaching a given decision, to identify the scientifically sound and useful information needed to reach an objective decision.

In implementing data collection and analysis activities, evaluators share an obligation with educators. They must provide information which is valid and objective. Objectivity requires that they be free to identify and investigate the viewpoints of a given decision maker's clients, constituents, and other interested parties. Evaluators have four broad obligations in the evaluation process: (a) to focus on evaluative information to be provided; (b) to collect, organize, and analyze that information; (c) to administer evaluative activities; and (d) to provide relevant evaluative feedback to decision makers at all levels.

The Dallas evaluation model is primarily a modification of the CIPP model advocated by Stufflebeam (1968). The CIPP model identifies four kinds of evaluation information: context describes the state of the

world before intervention, input describes the intervention strategies, process describes the implementation of strategies, and product describes the impact of intervention. The Dallas application of the CIPP model emphasizes context, process, and product data.

Special Education Research and Evaluation

The District's special education program is staffed by about 900 teachers, 150 aides, 150 appraisal team personnel, and 10 central office administrators. Instructional arrangements for the 9,000-11,000 students served annually range from total self-contained placement in a community center to itinerant instruction for students enrolled full-time in the District's regular education program.

In 1972 special education management perceived a need for program research and evaluation (R&E), and part of the District effort today includes eight personnel who work full-time conducting special education research. Special education R&E is contained within the District's Department of Research and Evaluation, which is an autonomous unit within the District administrative structure, thereby permitting more independent research than is perhaps possible in other settings. As illustrated in the simplified flow chart depicted in Figure 1, special education R&E is organized independently of the special education administrative structure.

Annual research priorities are established through a cooperative process between R&E personnel and special education management. Priorities for research studies are set formally in the late summer and early fall. The research question has been the basic framework for planning special education studies. Management and R&E personnel work cooperatively in the formulation of research questions and the effort in allocating finite resources in response to seemingly infinite information

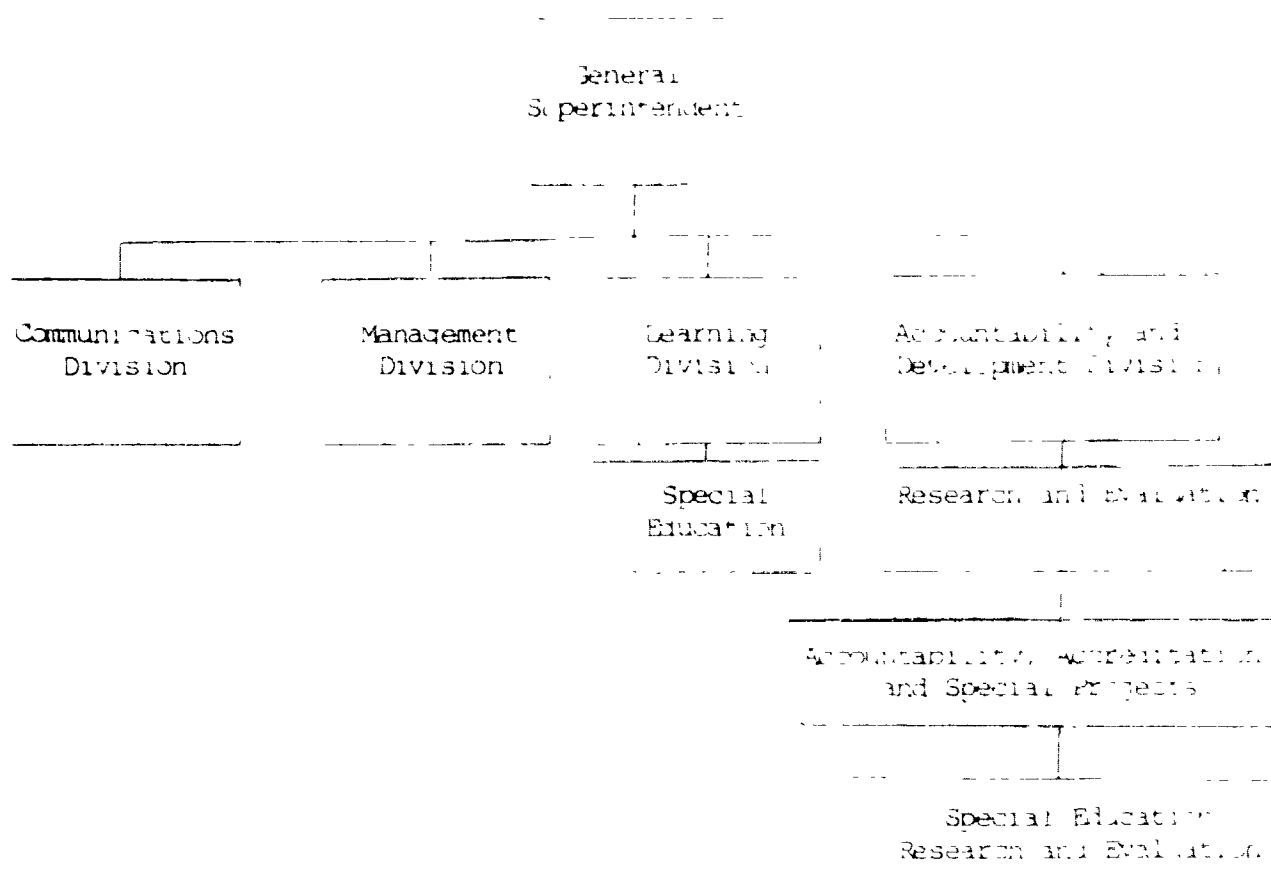


Figure 1: Simplified and Abridged Organizational Chart
for the Dallas Independent School District

and accountability needs. Some studies evolve from past results, while others originate due to new government regulations. In both instances, research studies strive to provide accountability.

TOPICAL AREAS FOR STUDY

Figure 2 illustrates the progression and development of special education R&E projects over a nine-year interval. The District implemented the Texas Comprehensive Special Education Program (Plan A) on a pilot basis in 1972. Plan A was an individualized, mainstream program for the handicapped. The evaluation of the pilot mainstreaming program continued through 1975, when it was implemented across the District. In many ways, Plan A provided the impetus for development of special education R&E within the District.

In 1974 the evaluation of Project HELP, a three-year study to develop screening procedures for potential learning problems, was initiated in cooperation with the District's community medical advisory community. The special education computer data base, maintained by special education R&E, originated in 1975, along with the evaluation of the Child Find Project (a program designed to locate unserved handicapped children) and Project KIDS (a program for handicapped infants and their families). In 1976 the Achievement/Attitude Testing Study was undertaken, and a context evaluation of the special education program was initiated.

In 1977 the impact of P. L. 94-142 was beginning to be felt and was reflected in the evaluation of IEP implementation. Also in 1977, a theoretical control study was implemented to develop new research methodology for application in product evaluation of Project KIDS. This

study attempted to procure quasi control group measurements for handicapped infants and toddlers.

During 1978 four more studies were conducted. These included the evaluation of Project SEED (a program for emotionally disturbed children), special programming for the severely/profoundly handicapped (SPH), Project KIDS Outreach, and the Multiple Careers Magnet Center (a part-time magnet school designed for career training). A screening project to identify hyperkinetic children was conducted in 1979-1980.

Four new projects are being evaluated currently during the 1980-1981 year. These include a longitudinal evaluation of handicapped infants, a study on special education student participation in District-wide standardized testing, an evaluation of the crisis-teacher program, and a program review of selected elements of P. L. 94-142.

ANALYSIS OF RESEARCH QUESTIONS

The foregoing considered special education research studies in terms of special projects and topical areas of investigation, but another dimension is the kind of information solicited in these studies. Classification and tabulation of research questions provided another means of studying the focus and nature of special education research.

A total of 39 studies were completed in the 8-year interval from 1972-1973 through 1979-1980, and an additional eight studies were initiated in 1980-1981, making a grand total of 47 studies from 1972-1973 through the current year, 1980-1981. These 47 studies addressed a total of 398 research questions, and these questions provided important descriptive information about the research conducted.

Research questions were classified into one of seven mutually exclusive categories in order to understand better the kind of information given priority by decision makers in the District. The seven categories and a brief explanation follow:

Category	Explanation
1) Context, Needs	Questions pertaining to context evaluation or needs assessment study; soliciting information in anticipation of some possible change. Example: What were the attitudes expressed by faculty in schools scheduled for Plan A implementation?
2) Student Description	Questions providing descriptions of students served in a given program. Example: What were the age, sex, race, and handicaps of students served in Project KIDS?
3) Model Description	Questions providing descriptions of the processes and procedures inherent in a given model or program, soliciting information pertaining to process evaluation. Example: Did the structure of educational plans meet program specifications?
4) Functional Quality	Questions soliciting a value judgment upon the quality of model or program implementation. Example: Were the instructional objectives of educational plans appropriate in relation to student profiles?

5) Model Effects

Questions about the effectiveness of a model or program in terms of progress made by the target population. Example: How did the achievement and attitude of resource room students compare to the control?

6) People Reaction

Questions soliciting information about the reaction of people (participants, staff, or other personnel) to the model or program. Example: How did Outreach site participants view the technical assistance provided?

7) Cost

Questions soliciting cost data of any type regarding any facet of model or program implementation. Example: What were the costs associated with data base operations?

Table 1 reports results of the classification and tabulation of 398 research questions. However, one consideration is in order prior to interpreting the data reported in Table 1. One must note that the classification of selected research questions involved a fair degree of arbitrary judgment on the part of the authors, and others could have opted conceivably to have classified selected questions into an alternative category. The Context/Needs and Functional Quality categories included several questions whose classification may have been moot.

A second consideration regarding the data reported in Table 1 necessarily involves the tabulation of questions. For example, should the question, what were the gains in reading and math of project children, have been tabulated as one or two questions? The decision was to count such a question as two questions, since it included two

Table 1
Tabulation of Research Questions Across Nine Years

Year	Focus of Questions							Total Questions	Number of Studies
	Context Needs	Student Description	Model Description	Functional Quality	Model Effects	People Reaction	Cost		
1972-73	2	0	1	0	1	2	0	6	1
1973-74	5	4	15	4	4	2	0	34	1
1974-75	1	2	3	1	11	1	0	19	4
1975-76	9	7	3	2	8	2	0	31	4
1976-77	17	7	13	7	10	2	4	60	6
1977-78	10	9	10	5	15	4	0	53	7
1978-79	13	6	13	4	10	12	2	62	9
1979-80	10	5	9	5	14	9	1	53	7
1980-81	15	6	30	11	9	8	1	80	8
Total N	82	48	97	33	82	42	8	398	
%	20.6	12.1	24.4	9.8	20.6	10.6	2.0		

dependent variables. This logic applied basically to all questions except for those in the Student Description category. In the latter case, a single question including several descriptive variables was tabulated only once. The underlying rationale was that such descriptive variables represented only minimal data collection effort, and did not warrant the weighting of given variables represented by the other categories. However, the tabulation of research questions was tedious, and several questions were tabulated necessarily in a somewhat arbitrary, though not capricious, manner.

Inspection of Table 1 reveals a number of interesting findings. Perhaps the most significant finding was that only 20.6% of the questions dealt with model effects. This contrasts sharply with most educational research and evaluation in which product evaluation frequently receives major emphasis. In fact, educational research and evaluation has been criticized for its overemphasis on product evaluation (Charters and Jones, 1973), and this overemphasis had led to the poor utilization of evaluation studies discussed by many writers (Alkin, Daillak, and White, 1979). Other writers have noted the predominance of process evaluation in the evaluation of mental health services (Stevenson and Longabaugh, 1980; Majchrzak and Windle, 1980), and this pattern may be characteristic of research and evaluation conducted in special education as well. The data show that about one-fourth (24.4%) of the questions analyzed dealt with model description or process evaluation kinds of information.

A second significant finding from Table 1 was that only 2.0% of the questions solicited cost information. This intuitively seems inadequate, and one might expect the proportion of cost-related questions to increase in the years to come. The small observed incidence of cost questions may

have been due to inadequate technical expertise of evaluators and to the comfortable economic conditions of previous years.

Perhaps the third striking discovery from Table 1 was the fairly even balance among the categories. All the categories, excepting cost, represented at least about 10% of the questions, and no single category included more than 25% of the questions. This suggested that District decision-makers gave priority to a well-balanced range of information needs in researching the special education program.

MAJOR AREAS OF INVESTIGATION

The remainder of this paper reports on research and evaluation efforts in six major topical areas: mainstream programming, child find, early intervention, IEP implementation, programming for emotionally disturbed children, and standardized testing. The District committed major resources toward research in these areas, and it was thought that these areas were also of high interest to a wide audience of professionals involved in special education.

Mainstream Programming 1972-1977

In 1968, the Texas Education Agency conducted a two-year study of the existing special education program in the State, and nationally recognized consultants recommended major changes in the Texas service delivery model. Provisions for a new state plan for special education were spelled out by Texas Senate Bill 230, which created the Comprehensive Special Education Program for Exceptional Children, known as Plan A. In effect, Plan A created a mainstream individualized program for handicapped children. The new plan had several critical distinguishing characteristics when compared to the former plan (designated Plan B).

Plan B

- (1) Funds were allocated on the basis of minimum numbers of identified handicapped students.
- (2) Students were grouped according to handicap label regardless of the degree of severity of the handicap.
- (3) Eligible students were 6-18 years of age and learning disabled students were not included.
- (4) The special education teacher served a single role; the teacher of a special education class and handicapped students spent their day in a special class.
- (5) No support personnel for appraisal were funded. Appraisal was rarely the result of a team effort.
- (6) The product of the appraisal was a diagnostic label which established eligibility

Plan A

- (1) Funds were allocated according to the average daily attendance of all children in the school district.
- (2) Students were grouped according to educational needs.
- (3) Eligible students were 3-21 years of age and learning disabled students were included.
- (4) A wide variety of instructional arrangements were provided, and the role of the special educator varied widely according to the needs of a particular school and its students.
- (5) Educational diagnosticians, psychologists, counselors and visiting teachers were funded.
- (6) The product of the appraisal was an educational plan of action which indicated classroom goals and objectives, and was periodically reviewed and updated.

Design. The longitudinal study of Plan A implementation in the Dallas ISD was organized into six phases describing management and evaluation phenomena over a five-year period. Phase I described pilot Plan A initiation in one high school cluster from September 1972 through December 1972. Phase II described the revised pilot Plan A in the same high school cluster and extended from January 1973 through August 1973. Phase III dealt with the continuation and expansion of the pilot Plan A from September 1973 through June 1974. Phase IV was a continuation of the Pilot Plan A at the expansion level reached during Phase III, which included two high school clusters. The District-wide expansion of Plan A, which took place in the 1975-1976 school year, constituted Phase V, and Phase VI represented the continuation of District-wide expansion in the 1976-1977 school year.

The following provides a summary of these phases and accompanying time periods:

Phase I	Pilot Plan A Initiation	September 1972 - December 1972
Phase II	Revision of Pilot Plan A	January 1973 - August 1973
Phase III	Expansion of Plan A Pilot	1973-1974 school year
Phase IV	Continuation of Plan A Pilot	1974-1975 school year
Phase V	District-Wide Plan A	1975-1976 school year
Phase VI	District-Wide Plan A Continuation	1976-1977 school year

Data were collected to evaluate Phase I and II by informal classroom visits, observations, and survey questionnaires to teachers, parents, and multidisciplinary appraisal teams (home-school coordinators, educational diagnosticians, counselors, and associate psychologists). During Phase

III evaluation activity was more intensive, including the implementation of the Plan A record keeping system, review of educational plans for completeness, and initial investigation of student progress in terms of instructional objectives.

The Phase IV evaluation reflected a reduction in the extent of process information collected, and there was a greater emphasis on evaluation of student progress. Since teacher reports of student progress in instructional objectives proved to be a relatively poor measure, the Peabody Individual Achievement Test (PIAT) was selected as a measure of progress. Also, during this time period, detailed evaluations were conducted comparing Plan A students to non-learning disabled students and to control groups within the Plan B program.

The Phase V evaluation made use of two major activities. These were mid-year surveys of Plan A staff and regular classroom teachers and a fall and end-of-year survey of educational plan documents. Phase VI evaluation included a staff development needs assessment questionnaire and a survey of Project KIDS parents.

Outcomes. At the conclusion of Phase I, it was evident that Plan A had encountered major implementation difficulties. The predominant implementation problems were the absence of clearly defined operational policies and procedures, a tremendous backlog in the development of educational plans, and delays in the procurement of instructional materials. Few written educational plans actually existed and there were excessive time-lags between staffings and generation of plans.

At the close of Phase II, professional reports showed that about 60 percent of the 551 Plan A students reviewed had made some progress. Only about 23 percent showed little or no improvement (reports were missing for 17 percent). In most cases, Plan A teachers were the primary

reporting sources. and the reported areas of improvement included academic areas, social behavior, perceptual skills, and others.

Parent responses were extremely encouraging. Of the 44 sampled parents, 73 percent said that their child received a great deal of individual attention, and no parent said that their child received little individual attention. Academic progress of children was reported to have been even greater than expected by 70 percent of the parents. According to 64 percent, Plan A staff had provided explanations which helped parents to understand their child's learning problem to a great degree.

During Phase III, Plan A teacher reports indicated that resource room students had attained or were progressing toward 1,358 of total 1,461 objectives specified in all the educational plans. This was an overall attainment/progress rate of 93 percent. Most teachers used observation, teacher-made tests, workbook tests, and standardized tests to assess progress. However, one caution in interpreting these data was that teachers possessed a wide range of objective-writing skills. Only 35 percent of parents, as compared to 64 percent in the previous year indicated that Plan A staff had provided explanations and information which helped parents to understand their child's learning problem.

Phase IV student progress was measured using the Peabody Individual Assessment Test (PIAT). Analysis of PIAT scores consisted of repeated measure ANOVA to test for the statistical significance of observed changes from the pretest to posttest and then the conversion of raw score averages to grade equivalent norms. Results showed that Plan A students in all groupings (gender and ethnicity) made significant pre-post gains in all PIAT subtests. In most cases, the improvement was significant at less than the .01 level. Most student scores showed about one-month grade equivalent gain for one-month instructional time.

The data showed that in almost all cases, Plan A students showed larger gains than expected. In a few cases, the observed gains were impressive. For example, male Plan A Black students in the cluster showed a gain in reading recognition almost five months greater than expected. The reading recognition gain of female Plan A Black students in this cluster was even more impressive, but the number of students tested (N=11) was small enough to cast doubt on the stability of the observed increment.

Expansion of Plan A from a pilot model to District-wide implementation took place in the final two phases (V and VI). Evaluation emphasized process information in deference to product information. The status of IEP implementation was a major concern of management during this time. The evaluation of the use of educational plan documents and the quality of instructional objectives will be discussed in more detail later in this paper.

Student progress was measured in Phase VI using the Project FIMS population (handicapped children from 0-60 months of age). The average completion rate for individual children in Project FIMS was about one objective per month. There was considerable variability among children in terms of completion rates (objectives completed per month). The range in rates was 0.0 to 6.00 objectives per month. There was no statistically significant relationship between completion rate and estimated parent instructional time or length of time in the project. In a survey, 34 percent reported that their child was not on course.

Child Find Project 1975-1980

The Child Find Project evaluated efforts in locating, identifying, and serving the handicapped population, providing follow-up of referrals, and monitoring

development of referral procedures. During the first three years of the project, federal funding was available for development of the Districts' Child Find system. Child Find activities included a 24-hour telephone answering service, a community-wide public awareness campaign, and on-site visits to community agencies in the service delivery network.

In addition to basic child find activities, the project also field tested a screening instrument developed by the Dallas County Mental Health/Mental Retardation agency to determine its applicability with SPH children. The project also operated two pilot developmental centers for SPH children. In addition, follow-up data were collected on those students who enrolled in the District special education program.

In 1978, federal funding terminated, and the District integrated selected components of the child find project into its normal operating procedures supported by local funds. Project staff was reduced, but the 24-hour answering service, case management procedures, and referral followup activities were continued. Activities conducted during previous years of the project such as regular agency visits, house-to-house canvassing, and vast media dissemination were eliminated due to funding limitations.

Design. Research was conducted in the child find project by tabulating referral sources, monitoring the time span between referral and placement, providing a record keeping system containing descriptive data on referrals and evaluating the success of child find activities.

Outcomes Table 2 illustrates five-year trends for referrals in the child find project. Parent and human service agency personnel each accounted for more than one-third of all referrals received each year. Dallas ISD personnel accounted for an average of 14 percent of the referrals. About 20 percent of the referrals refused special placement,

Table 2
Child Find Five-Year Trends

Year	Number Referrals Received	Major Referral Sources (Percent)	Percent- Placed/ Placement Intervals	Percent From Target Popula- tion ^a	Percent Pre-school (Age)
1975-76 (Jan. to June 30)	106	Parents (41.5) DISD (7.5) Agencies (34.1)	37.5 (N=33) 6.1 wks.	83.0 (N=88)	(0-2) 11.4 (3-5) 31.8
1976-77 (July 1-June 30)	226	Parents (25.3) DISD (13.7) Agencies (36.3)	57.5 (N=130) 10 wks.	82.7 (N=187)	(0-2) 4.9 (3-5) 51.3
1977-78 (July 1-June 30)	160 (254 includ- ing 94 MMR referrals)	Parents (36.9) DISD (19.5) Agencies (32.6)	63.8 (N=102) 13 wks.	93.7 (N=150)	(0-2) 3.1 (3-5) 73.1
1978-79 (July 1-May 30)	187	Parents (33.2) DISD (19.8) Agencies (28.3)	43.3 (N=81) 14.9 wks.	90.4 (N=169)	(0-2) 24.6 (3-5) 56.2
1979-80 (July 1-May 30)	221	Parents (29.9) DISD (19.4) Agencies (24.4)	68.3 (N=151) 15.9 wks.	96.8 (N=214)	(0-2) 26.7 (3-5) 62.4

^a of school, unserved handicapped children

were ineligible for special education, or moved out of the District before service initiation.

Table 2 also shows that over 82 percent of the referrals obtained each year were from the target population of unserved, handicapped children, with the majority of the children referred having been between three and five years of age. The area of mental retardation (primarily on the trainable level) accounted for the majority of the handicapping conditions reported each year. Project records from the first-year media campaign showed that approximately 1,000 window posters, 15,000 brochures (5,000 Spanish), 6,000 door hangers, 5,000 bumper stickers, 10,000 telephone stickers, and 4,000 lapel buttons were disseminated in the media campaign. Printed materials were disseminated also throughout the duration of the project, and there was limited use of TV, radio, and newspaper spots.

Survey results showed that parents most often cited the printed poster as their source of exposure to the child find project. The data suggested that the printed poster displayed in public areas such as the supermarket, laundromat, or drug store was the most effective means of communicating the project slogan, "Public Schools Are for the Handicapped, Too."

A house-to-house canvas was found to have been an ineffective means of locating unserved handicapped children as there were only twelve referrals during the first two years. Presentations to community service agencies were very effective as approximately 60 percent of the referents reported agency personnel provided the project's 24-hour telephone number.

Field testing the Developmental Evaluation Scale showed the DES had public school application, but needed to be shortened, and two shortened versions were then developed. Analysis of DES scores indicated that the short versions could be used as a screening instrument.

Follow-up interviews with special education teachers who received child find referrals found that attendance and peer-interaction of children located by child find were comparable to other special education students. Most students were said to be progressing, and most teachers reported no special problems associated with referred students. There were isolated reports of problems due to inadequate physical facilities or unique conditions of selected students. Most parents were reported to have been supportive of the public school experience.

Early Intervention 1975-1981

Project KIDS (Kindling Individual Development Systems) is a District model program for handicapped infants, toddlers, preschool children and their families. The project, directed by Dr. Ruth Turner, was funded by the Bureau for the Education of the Handicapped in the former U. S. Office of Education and is part of a nationwide network of early childhood programs for the handicapped. Project KIDS has served developmentally delayed and physically handicapped children from 0-60 months of age, with services delivered through three methods: home-based training program for children from birth to 23 months of age, center-based infant stimulation classes for children 24 to 35 months; and school-based early childhood class units for children 36 to 60 months.

Project KIDS has attempted to integrate the child's parents into the instructional role in cooperation with project staff, and to provide a continuum of education from a home setting to a school setting for

handicapped children and their parents. The administration and organization of the project has been built around five components: children, parents, staff development, demonstration/dissemination and evaluation.

Project KIDS Outreach is a program designed to increase the number of quality programs for young handicapped children through replication of the Project KIDS model training, demonstration, and dissemination activities. The participants in the KIDS Outreach component have concentrated their service delivery efforts on the school-based early childhood population. The support systems provided to each setting include an appraisal/curriculum component, staff development, parent involvement, and a program evaluation component.

The objectives of the project apply to local, regional, and state levels. The project has conducted demonstration and information sharing activities to increase public awareness of the KIDS model program and of the importance of early intervention. State level activities have included participation in the Triple T Consortium (Teaching Texas Tot's), a statewide organization for projects who serve handicapped infants and toddlers.

To provide developmental profiles of the children, project staff developed the KIDS Inventory of Development Scale, a 323-item developmental checklist of tasks sequenced according to chronological age 0-72 months in four areas: gross motor, fine motor, cognitive/language and self-help. Corresponding to each item on the checklist, instructional guidelines, called MAPs (Mini Activity Plans), were designed and provided the core curriculum in the project model.

Since Project KIDS has emphasized the involvement of parents in the instruction of young handicapped children, parents also received training to expand their roles as major instructional agents for their children. To aid parents in increasing their teaching expertise, a competency-based approach to a parent involvement/training program was designed.

Design. Project KIDS evaluation activities centered around the implementation of an overall evaluation design in terms of context, input, process and product evaluation. This entailed the periodic monitoring of project activities within each replicated component, assessing the extent of replication at each site, describing the replication sites and the students served, and assessing student progress.

Product evaluation of the project not only included analysis of pre-post measures of developmental progress but also development of a theoretical control group strategy, due to the lack of subject availability for control group comparison. The strategy called for an expert panel to project test performance on the assumption of no treatment intervention and then the comparison of projected scores to actual test scores.

Other methodology used in Project KIDS involved survey questionnaires, on-site visits, and personal interviews. Considerable effort was committed also to development of Parenting Competency statements to provide a basis for training activities in the parent component of the project. A Parent Self-Appraisal Inventory was constructed using top priority competency statements as items in the instrument, and reported ratings of relative strength provided the basis for selection of training activities.

Outcomes. In terms of model implementation, problems cited by teachers frequently focused on the KIDS Inventory in terms of the vagueness of wording and criteria, and its restricted application in certain areas and handicapping conditions. However, Project teachers generally reacted favorably to the KIDS model and cited the KIDS Inventory as a major advantage of the model. Teachers liked the KIDS Inventory in terms of its use for determining functional levels, measuring student progress, and developing IEPs for students. Additionally, the direct link between the Inventory and the KIDS curriculum was a positive benefit cited by teachers.

Classroom observation found that the KIDS model was generally implemented adequately in the classroom, and there was emerging evidence that the basic organization and structure of the KIDS model assured acceptable continuity in classroom implementation across teachers and schools. However, the parent component of the model experienced implementation problems, especially in Outreach sites.

Parents reported their perceived competence level on the Parent Self-Appraisal Inventory (PSAI) and then selected individualized training activities based on the PSAI results. A continuum of training activities, ranging in difficulty and format, was developed for each PSAI competency. Parents generally preferred the individual at home activities as opposed to group meetings. Comparison of PSAI ratings by parents and teachers' ratings of parent competency showed that parents rated themselves at a higher average competency level than the teachers rated parents.

Pre-post analysis of KIDS Inventory of Development scores showed that children in all three instructional settings (home, center, and school) typically made significant pre-post gains from September through

May. Comparison of the average developmental age gain (7.4 months) to the average length of intervention (8.0 months) for selected center-based children (N=26) showed that the rate of growth or maturation during intervention was 93% of the normal rate. For selected school-based children (N=17), the maturation rate was 124% (9.1 months ÷ 7.6 months). Similar comparisons were not made for the home-based infants due to the large variability in length of intervention.

The first theoretical control study sampled 17 children from Project KIDS and four experts in child development and early childhood education. Results found that reliabilities of test scores projected by the expert panel for both the Bayley Scales of Infant Development and the KIDS Inventory of Development were extremely good, ranging from .81 to .95. Comparison of theoretical control scores to actual Bayley test scores showed that sampled Project KIDS children (18 months and younger at pretest) performed significantly better at the end of the 12-month period than the control on the Bayley motor scale but not on the Bayley mental scale. A sufficient number of actual KIDS Inventory scores was not available for comparison to the theoretical control scores.

A second theoretical control study sampled 50 Project KIDS children and five expert panel members from the Dallas Metroplex area. Sampled children made highly significant improvement in developmental progress during the 12-month pre-post observation period, and comparison of theoretical control scores to actual Bayley scores showed that the Project KIDS children performed significantly ($p < .10$) better than the control, thereby indicating that gains were greater than would have been expected without proper intervention. On the average, children gained eight and one-half months on the Bayley mental scale and seven months on the Bayley motor scale.

Individualized Education Program (IEP) Implementation 1972-1978

Public Law 94-142 mandated that all children in special education shall have an IEP. The two basic components of the IEP process consist of the administrative structure for development, implementation, and review; and the written plan stating the Individualized Educational Program. The Dallas ISD format of the written IEP document was changed in 1977 to conform with P.L. 94-142 guidelines, since these forms were a continuation of the educational plan used in the Texas Comprehensive Special Education Program (Plan A), which was implemented several years prior to P.L. 94-142. This revised IEP plan included present levels of educational performance, annual goals, short-term objectives, extent of participation in a regular education program, and a description of all special education and related services to be provided.

Design. The evaluation of the District's mainstreaming program during the pilot operation and ultimate expansion addressed a number of IEP related issues. During each of the six mainstreaming phases the status of educational plans were analyzed. As detailed earlier in this paper, methods used for evaluation included classroom observations, teacher questionnaires, reviewing educational plans for completeness, and investigating student progress measured by attainment of instructional objectives.

The evaluation of IEPs continued after Plan A was expanded District-wide. In 1978 a study surveyed a sample of IEP documents for completeness and technical quality of instructional objectives. Data were collected also with questionnaires from special educators during staff development days. Results of the study addressed current status of IEP documents and identified staff development needs.

Outcomes. Educational plan documents generally reflected good instructional expertise in the second year of Plan A implementation (1973), but the writing of instructional objectives was an area in need of improvement. A later Plan A evaluation study found that plan documents were generally complete in terms of required information but that the writing of instructional objectives continued to need improvement.

In 1978, results showed that IEP documents written by special education teachers generally met P.L. 94-142 guidelines, but a major deficiency was that more than one-half the sampled IEPs did not include annual goals in concert with short-term objectives. In addition, the instructional objectives were technically complete in 33 percent of IEPs. However, these two criteria were complete in almost 100 percent of IEPs developed by speech pathologists.

The study also revealed an interesting discrepancy between IEP expertise as reported by special education teachers and as evidenced in sampled IEP documents. About 93 percent of the staff reported understanding the distinction between annual goals and short-term objectives, but only 42 percent of sampled teachers specified both goals and objectives in the IEP documents. Both teachers and special education coordinators cited difficulty in specifying mastery dates for instructional objectives, and 60 percent of sampled IEPs contained mastery dates. These results seemed to reflect the complex issues involved in IEP development in that staff development training might not always have been translated into the written IEPs.

Evaluation to date has shown also that the curricular scope of instructional objectives specified in IEPs has been generally much less comprehensive than desired. Five thousand objectives specified for 1,502

students were reviewed in 1978, and it was found that about 60 percent of the objectives dealt with math and language arts. Less than five percent of sampled objectives were in the area of perceptual/motor skills, which indicated an imbalance in the curricular content for handicapped students, especially since the motor domain is typically a deficient area for many handicapped children.

Programming for Emotionally Disturbed Children 1978-1981

Project SEED (Structured Environment for the Emotionally Disturbed) is a District model program for emotionally disturbed students. The program is designed to organize the instructional ecology for more severely disturbed students through the provision of carefully sequenced experiences. The focus of the sequence was the provision of carefully identified increments of learning provided within three structured levels which were to allow the severely disturbed student to be accommodated in increasingly less restrictive environments. The components of the three-level structured environment included behavior management strategies, curriculum interventions of parental involvement, and therapeutic interventions (group and individual counseling support).

The 1979-80 school year was the second year of the program's proposed three-year developmental period. Second year implementation focused on the refinement of program components and on continuing the delivery of services to emotionally disturbed students. Project SEED was implemented in two schools, one elementary and one secondary, where the regular continuum of curriculum and student services was provided in both regular and special education classrooms.

Design. Assessment of project implementation was based on specifications detailed in the project grant, and other evaluation data

collected during the 1979-80 year included classroom observations and attendance, behavior, and parent involvement data from project records. The Wide Range Achievement Test was used to gather a measure of educational progress.

Outcomes. Ten problem areas were identified during the first year of program implementation. These problem areas were addressed by the management team during regularly scheduled meetings throughout the 1979-80 year. Alternative actions were discussed and decisions made concerning adaptation of project policy. These areas were: an identifiable approach to instructional programming, a systematic and consistent counseling program, expansion of parent involvement, establishment of consistent criteria for student progress, completion of building modification, placement of full staff, administration of standardized tests of academic achievement and self-concept, identifiable process for mainstreaming, management-staff interaction and supervision of students beyond the project's physical setting.

Continued study in the second year identified problems in implementing the project which remained from the first year (1978-79) at both sites although the problems were of a lesser degree at the elementary site. Of the ten problem areas identified at the end of 1978-79, four appeared to be resolved satisfactorily, progress was made in two additional areas, and serious problems remained in four areas. The areas of success included completion of crisis rooms at both sites, placement of appropriate staff at both sites, scheduling of regular management team meetings and notification to Admissions, Review and Dismissal (ARD) teams of the need for awareness regarding mainstreaming issues in the placement of students in Project SEED.

Improvement was shown also in administration of the WRAT to participating students at the elementary site. Academic achievement data were still virtually non-existent at the secondary site. Also at the elementary sites school psychologists appeared to be providing appropriate counseling at consistent intervals. Problem areas remaining included: (a) lack of a systematic approach to provision of services to individual students; (b) lack of objective criteria for measuring student progress; and (c) lack of specific guidelines for structuring environment across levels of the program.

Students continued to progress through the levels of the program and return to regular education classrooms apparently having mastered school-appropriate behaviors. However, assessment of the actual contributions of program components to this progress would have required identification and implementation of procedures which were compatible with program goals and objectives, a condition not evident in project implementation.

Standardized Testing 1976-1977; 1978-81

The Dallas ISD System-wide Testing Program consists of norm-referenced, minimum competency, and criterion-referenced tests. Included with these instructional tests are the Texas Assessment of Basic Skills (TABS) which according to Texas Education Code (TEC) must be administered to all eligible students in grades 3, 5, and 9. In addition, all ninth grade students who did not meet mastery on the 1979-80 TABS "shall be given the opportunity to retake the assessment instrument each year the assessment instrument is administered." (TEC Section 16.176).

The District's Board policy relative to minimum competency requirements indicated that beginning with the graduating class of 1983,

all eligible students must pass a functional literacy course in order to graduate and receive a high school diploma. Students pass the functional literacy course by correctly answering 70% of the total items on the Basic Objectives Assessment Test (BOAT), Level 8-12. Beginning in the eighth grade, the BOAT is administered yearly to each student who has not achieved the passing criterion of 70%. It is also consistent with this policy that beginning with the class of 1981, students who pass the BOAT will receive transcripts with such certification.

Design. The basic strategy in the study of special education student participation in the District's standardized testing program was to match special education enrollment rosters with testing rosters. This was done with some degree of ease because of the extensive computer applications in both the special education program and in the standardized testing program, once the population of special students who had taken standardized tests was identified.

One intent of this recent study is to investigate the extent to which participation by special students in standardized testing has matched previous guidelines and policies of the District. Additionally, test score performance will be analyzed and compared in terms of those students who were eligible for testing and those who were not eligible.

Outcomes. The first study of special student participation in the standardized testing program (1976-77) indicated a surprisingly high number of District special education students (N=2,359) who had taken standardized tests (Metropolitan Readiness Tests, Iowa Tests of Basic Skills, and the Iowa Test of Educational Development), but 1,500 of these were speech only students and perhaps not usually thought of as having been special education students. Nevertheless, test performance of special students was low. Only about 1/5 to 1/3 of the students scored above a chance level.

Results from the current study (1980-81) are not yet available, but these will provide input to the decision-process underway to develop new guidelines for exceptions and exemptions for students regarding standardized testing and minimum competency requirements. One expected policy outcome is that all District standardized testing and competency testing will be placed within the decision process of the appraisal/placement team who determines special education eligibility for any given student.

SUMMARY

The 1979-80 school year marked the eighth year of continuing research and evaluation conducted for the Special Education Department of the Dallas Independent School District. Research and evaluation personnel worked very closely with special education managers throughout the past eight years and the current year, and studies conducted were responsive to managerial information needs. Special education managers and staff were most cooperative in the carrying out of studies and, perhaps more importantly, used research and evaluation results in order to improve the special education program.

This report considered the special education research studies in terms of topical areas of investigation and the kinds of information solicited in the studies. Content of this paper dealt with research questions, methods, major results, and implications for decision makers and evaluators.

A total of 39 studies were completed in the 8-year interval from 1972 through 1980, and an additional eight studies were initiated in the current 1980-1981 school year. Approximately 400 evaluation questions were investigated during this time. Classification and tabulation of these questions in terms of the kinds of information solicited revealed that 21% of the questions dealt with information about program effects, and 24% dealt with description of program procedures. While there was a fair balance of emphasis across six of the seven categories used to classify questions, only 2% of the questions pertained to any kind of cost analysis.

Six major topical areas were described in this paper. These include: mainstream programming, child find, early intervention, IEP

implementation, programming for emotionally disturbed children, and standardized testing. The District committed major resources toward research in these areas, and it was thought that these areas were also of high interest to professionals involved in special education.

The longitudinal study of mainstreaming and IEP implementation was organized into six phases describing management and evaluation phenomena over a five-year period (1972-1977). As such, this was a five-year longitudinal study of the special education department's experiences with implementing an IEP for special students during the pilot operation and ultimate expansion of mainstream programming in the Dallas ISD.

The District's child find project, spanning from 1975 to 1980, evaluated efforts in locating the unserved, handicapped population, while also providing follow-up of referrals, and continuing development of referral procedures. Child find activities included a 24-hour telephone answering service, a community-wide public awareness campaign, and on-site visits to community agencies in the service delivery network.

In 1975, the District initiated efforts to provide early intervention for handicapped children. Most notable were Project KIDS (Kindling Individual Development Systems) and Project KIDS Outreach. Project KIDS served developmentally delayed and physically handicapped children from 0-60 months of age, with services delivered through three methods: home-based training program for children from birth to 23 months of age, center-based infant stimulation classes for children 24 to 35 months; and school-based early childhood class units for children 36 to 60 months. The evaluation of Project KIDS sought to provide developmental profiles of the children, monitor project activities, design training guides for the parents, and evaluate program effectiveness.

A program for the emotionally disturbed, Project SEED (Structured Environment for the Emotionally Disturbed), was implemented in 1978. This program was designed to reintegrate severely emotionally disturbed students to a least restrictive environment. Evaluation focused on providing decision makers with information relative to the degree of program implementation, the attitudes of teachers, staff members, and parents toward the program, and the achievement of the students.

Finally, standardized testing of special education students became a topic of current administrative interest and concern. Studies were undertaken to determine the extent of participation of special education students on standardized tests and the potential utility of those observed test scores. Evaluation in this area will provide input to the decision process; underway to develop new guidelines for exemptions/exceptions for students regarding standardized testing and minimum competency requirements.

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